

Amendments to the Claims:

Please amend Claims 23 and 24 and add new Claims 25-32 as follows. This listing of claims will replace all prior versions and listings of claims in the application:

1-22 (Cancelled)

23. (Currently Amended) A method for processing input image data, the method comprising the steps of:

receiving image data that includes data representing a plurality of pixels, wherein each pixel of the plurality of pixels is associated with a location and one of at least three intensities;

accessing data in a memory, the data representing a ~~half-tone~~ screen, the ~~half-tone~~ screen including a plurality of ~~half-tone~~ planes, each ~~half-tone~~ plane of the plurality of ~~half-tone~~ planes including a plurality of cells, wherein each cell of the plurality of cells is associated with one of at least three microdot densities, the microdot densities being representative of a particular dot size capable of being printed by a gray-level printer;

for each pixel ("current pixel") of the plurality of pixels:
determining the intensity and the location of the current pixel, selecting one of the plurality of ~~half-tone~~ planes based at least upon the current pixel's intensity, and associating one of the plurality of microdot densities in the selected ~~half-tone~~ plane with the current pixel based at least upon the current pixel's location;

outputting the microdot densities associated with the plurality of pixels as first gray-level ~~half-tone~~ data;

blending the first gray-level ~~half-tone~~ data with second gray-level ~~half-tone~~ data resulting in blended-gray-level ~~half-tone~~ data, wherein the blending weights the first gray-level ~~half-tone~~ data and the second gray-level ~~half-tone~~ data depending upon characteristics of the image data;

performing edge enhancement on portions of the blended-gray-level ~~half-tone~~ data that include text or high-contrast-edge data, thereby resulting in enhanced-blended-gray-level ~~half-tone~~ data; and

outputting the enhanced-blended-gray-level ~~half-tone~~ data.

24. (Currently Amended) An image processing apparatus comprising:

a memory storing data representing a ~~half-tone~~ screen, the ~~half-tone~~ screen including a plurality of ~~half-tone~~ planes, each ~~half-tone~~ plane of the plurality of ~~half-tone~~ planes including a plurality of cells, wherein each cell of the plurality of cells is associated with one of at least three microdot densities, the microdot densities being representative of a particular dot size capable of being printed by a gray level printer;

a first ~~half-tone~~ circuit configured at least to:

receive image data that includes data representing a plurality of pixels, wherein each pixel of the plurality of pixels is associated with a location and one of at least three intensities, and

for each pixel ("current pixel") of the plurality of pixels: determine the intensity and the location of the current pixel, select one of the plurality of ~~half-tone~~ planes based at least upon the current pixel's intensity, associate one of the plurality of microdot densities in the selected ~~half-tone~~ plane with the current pixel based at least upon the current pixel's location, and output the microdot densities associated with the plurality of pixels as first gray-level ~~half-tone~~ data;

a second ~~half-tone~~ circuit configured at least to receive the image data and output second gray-level ~~half-tone~~ data;

a blending circuit communicatively connected to the first ~~half-tone~~ circuit and the second ~~half-tone~~ circuit and configured at least to blend the first gray-level ~~half-tone~~ data with the second gray-level ~~half-tone~~ data, thereby resulting in blended-gray-level ~~half-tone~~ data, wherein the blending performed by the blending circuit weights the first gray-level ~~half-tone~~ data and the second gray-level ~~half-tone~~ data depending upon characteristics of the image data;

an edge enhancement circuit communicatively connected to the blending circuit and configured at least to perform edge enhancement on portions of the blended-gray-level ~~half-tone~~ data that include text or high-contrast-edge data, thereby resulting in enhanced-blended-gray-level ~~half-tone~~ data; and

an output circuit communicatively connected to the edge enhancement circuit and configured at least to output the enhanced-blended-gray-level ~~half-tone~~ data.

25. (New) The method of Claim 23, wherein the screen is a multilevel stochastic screen.

26. (New) The method of Claim 23, wherein the screen is a halftone screen.

27. (New) The method of Claim 23, wherein the blending step only blends midtone, high-contrast, or midtone and high-contrast regions of an image.

28. (New) The method of Claim 23, wherein the first gray-level data and the second gray-level data are color matched, structure matched, density matched, or combinations thereof.

29. (New) The apparatus of Claim 24, wherein the screen is a multilevel stochastic screen.

30. (New) The apparatus of Claim 24, wherein the screen is a halftone screen.

31. (New) The apparatus of Claim 24, wherein the blending circuit only blends midtone, high-contrast, or midtone and high-contrast regions of an image.

32. (New) The apparatus of Claim 24, wherein the first gray-level data and the second gray-level data are color matched, structure matched, density matched, or combinations thereof.